REMARKS

Claim 1 has been amended. Claims 1-22 are pending in the application. Applicants reserve the right to pursue the original claims and other claims in this and other applications.

In the Office Action dated March 2, 2006, the following rejections were made. Claims 1-3, 8-12, 14 and 20-22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamagata in view of Miyazaki. Claim 6 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Miyazaki, Yamagata, and Nakajima. Claims 4, 5 and 7 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Miyazaki, Yamagata, and Morita. Claim 13 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Miyazaki, Yamagata, and Negishi. Claims 15, 16, 18 and 19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamagata in view of Miyazaki and Kane. Claim 17 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Miyazaki, Yamagata, Kane and Nakajima. Applicants respectfully traverse these rejections.

Claim 1 recites a display unit for displaying an image, and a drive unit for driving the display unit, the drive unit being connected by a plurality of signal lines. Claim 1 has been amended to clarify that the "display unit comprises a plurality of display pixels arranged in a matrix form and the signal lines are arranged in each column." Claim 1 further recites that the "drive unit comprises a ladder resistor, impedance converters each having an input connected to an output of the ladder resistor, gray level voltage wires each connected to the output of the impedance converters, gray level voltage selecting means selectively connecting said gray level voltage wires to said plurality of signal lines, wherein the number of said impedance converters matches the number of said gray level voltage wires and matches a number of a plurality of gray level voltage selectors of said gray level voltage selecting means

connected to the gray level voltage wires." As argued previously, Applicants respectfully submit that the cited combinations fail to disclose, teach or suggest the subject matter of claim 1 (as well as the subject matter of claims 2-22).

For example, the cited combinations do not disclose or suggest an image display apparatus comprising a drive unit, which comprises "a ladder resistor, impedance converters *each having an input connected to an output of the ladder resistor,* gray level voltage wires *each connected to the output of the impedance converters,* gray level voltage selecting means selectively *connecting said gray level voltage wires to said plurality of signal lines,* wherein the number of said impedance converters matches the number of said gray level voltage wires and matches a number of a plurality of gray level voltage selectors of said gray level voltage selecting means connected to the gray level voltage wires," as recited in claim 1 (emphasis added).

Moreover, the cited combinations fail to disclose, teach or suggest "an image display apparatus having a drive unit including a ladder resistor, impedance converters *each having an input connected to an output of a ladder resistor,* gray level voltage wires *each connected to the output of the impedance converters,* wherein the number of said impedance converters matches the number of said gray level voltage wires, and matches a number of a plurality of gray level voltage selectors connected to the gray level voltage wires in three separate phases when the analog image signal voltages are written onto the signal lines," as is recited in claim 16 (emphasis added).

In addition, the cited combinations fail to disclose, teach or suggest a "drive circuit having a ladder resistor and a plurality of gray level voltage wires *each connected through a plurality of impedance converters,* respectively *to an output of the ladder resistor;* said group of *signal lines are connected to said gray level voltage wires via a gray level voltage selector;* each gray level voltage wire is *connected to the output of the impedance converters,*

respectively, wherein the number of said impedance converters matches the number of said gray level voltage wires; at least the display pixels, the group of signal lines, the gray level voltage selector and the gray level voltage wires are provided over the same substrate; and wherein the analog image signal voltages are written in three separate phases when the analog image signal voltages are to be written onto the signal lines," as is recited in claim 19 (emphasis added).

Similarly, the cited references do not teach or suggest an image display terminal comprising a "drive circuit [having] a ladder resistor and a plurality of gray level voltage wires each connected through a plurality of impedance converters, respectively to an output of the ladder resistor; said group of signal lines are connected to the gray level voltage wires via a gray level voltage selector; each of said gray level voltage wires connected to the output of the impedance converters, respectively, wherein the number of said impedance converters matches the number of said gray level voltage wires; and at least the display pixels, the group of signal lines, the gray level voltage selector and the gray level voltage wires are provided over a single substrate," as recited in claim 20 (emphasis added).

That is, according to the claims, and contrary to the statements in the Advisory Action, the invention recites an image display apparatus comprising components connected in the following manner:

impedance converters->gray level voltage wires-> signal lines.

The cited combinations, on the other hand, do not disclose, teach or suggest the claimed configuration of the invention. As such, the cited combinations cannot disclose teach or suggest the above claim limitations.

For example, referring to Yamagata's Figures 1 and 2, Yamagata teaches a liquid crystal display apparatus and circuit of a negative selector NSEL (n-channel selector), SEL1 and a gradation voltage generating portion 5 connected to the former. The Office Action states that the ladder resistor and the gray level voltage selecting means of the claimed invention are known. Applicants respectfully traverse this argument and respectfully submit that Yamagata merely teaches connecting components in the following manner (see Yamagata Figures 1 and 3-10):

gray level voltage wires->impedance converters-> signal lines.

Accordingly, Yamagata fails to disclose, teach or suggest essential claim elements. In addition, Applicants respectfully submit that the other primary reference, Miyazaki, also fails to disclose, teach or suggest the claimed configuration of the invention. As such, Miyazaki, even when combined with the other cited references, cannot disclose teach or suggest the above claim limitations.

Specifically, Miyazaki, which Applicants respectfully submit teaches concepts substantially different than gray level voltage wires (see e.g., common driver and segment driver in Figure 8 and signals V1 and GND of table 1). Contrary to the claimed invention, Miyazaki teaches the following configuration:

ladder resistor ->impedance converters-> signal lines.

That is, Miyazaki connects its impedance converters directly to signal lines whereas the claimed inventions connect outputs of the impedance converters to gray level voltage wires that are selectively connected to the plurality of signal lines. The Miyazaki configuration and the claimed inventions are patentably distinct. Applicants respectfully submit that Miyazaki fails to disclose, teach or suggest the claimed inventions.

As such, the primary references fail to disclose, teach or suggest all of the limitations of claims 1, 16, 19 and 20. Applicants respectfully submit, that the other cited references do not cure the deficiencies of Yamagat and Miyazaki. That is, Nakajima is relied upon for disclosing an offset canceling unit, but adds nothing to rectify the above-noted deficiencies. Morita is relied upon for disclosing a differential amplifying circuit using field-effect transistors. Negishi is relied upon for disclosing a ladder resistor configured as one resistor, but adds nothing to rectify the deficiencies of Miyazaki and Yamagata. Kane is relied upon for disclosing three separate phases when the analog image signal voltages are written onto the signal line, but adds nothing to rectify the deficiencies of Yamagata and Miyazaki.

Moreover, and as previously argued, Miyazaki and the other cited references fail to teach or suggest how to modify Yamagata to obtain the claimed invention. There is therefore no prima facie case of obviousness. Obviousness is based on factual findings. "Whether a patent claim is obvious under section 103 depends upon the answer to several factual questions and how the factual answers meld into the legal conclusion of obviousness *vel non*." *McGinley v. Franklin Sports, Inc.*, 262 F.3d 1339, 1351 (Fed. Cir. 2001). The four underlying factual inquiries are: (1) the scope and content of the prior art; (2) the differences between the claims and the prior art; (3) the level of ordinary skill in the pertinent art; and (4) secondary considerations, if any, of non-obviousness. *Graham v. John Deere Co.*, 393 U.S. 1, 17-18 (1966).

Applicants respectfully submit that there is no motivation to combine the cited references to obtain the invention of claims 1, 16, 19 and 20. Motivation or suggestion to combine or modify prior art references "must be clear and particular, and it must be supported by actual evidence." *Teleflex, Inc. v. Ficosa North America Corp.*, 299 F.3d 1313, 1334 (Fed. Cir. 2002). Because the "genius of invention is often a combination of known elements which in hindsight seems preordained," the Federal

Circuit requires a "rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references." *McGinley*, 262, F.3d at 1351. Yet there is no teaching or suggestion within any of the references that provide a motivation to combine them.

The Advisory Action's statement that motivation lies in Miyazaki (i.e., reduce power consumption) is respectfully traversed. The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680 (Fed. Cir. 1990). Thus, a showing of an obvious combination requires more than just an amalgam of references, each of which provides one feature of the claimed invention.

The Office Action has done no more than cite a group/pair of references, each of which allegedly provides one feature/only part of the claimed invention, and allege that their combination renders the invention obvious. However, without the benefit of hindsight, there would have been no motivation to combine these references and the Office Action has failed to provide proof of any such motivation. This is one more reason why claims 1, 16, 19 and 20 are allowable over the cited combination.

Claims 2-15 and 22 depend from claim 1 and are allowable along with claim 1. Claims 17-18 depend from claim 16 and are allowable along with claim 16. Claim 21 depends from claim 20 and is allowable along with claim 20. Accordingly, the rejections should be withdrawn and the claims allowed.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to review and pass this application to issue.

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Respectfully submitted,

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